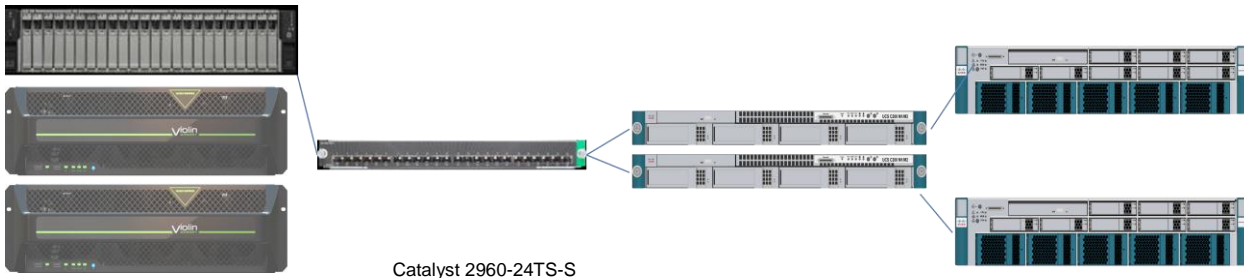




# Cisco UCS C240 M3 Rack Server

TPC-C Rev. 5.11  
 TPC-Pricing Rev. 1.70  
 Report Date: September 26, 2012

Total System Cost	TPC-C Throughput	Price/Performance	Availability Date
\$747,036 USD	1,609,186.39 tpmC	\$0.47 USD/ tpmC	September 26, 2012
<b>Processors</b>	<b>Database Manager</b>	<b>Operating System</b>	<b>Other Software</b>
Intel E5-2690 2.90GHz 20M L3 cache	Oracle Database 11g Standard Edition One	Oracle Linux with Unbreakable Enterprise Kernel Release 2	Microsoft COM+
<b>Number of Users</b>			
1,295,000			



UCS C240 M3 rack Server  
 2 x Intel Xeon E5-2690 2.9 GHz 20M L3 Cache 135W  
 2 x 300GB 6Gb SAS 10K RPM SFF HDD  
 8 x 1TB 6Gb SATA 7.2K RPM SFF HDD  
 24 x 32 GB DDR3-1333 MHz RDIMM  
 2 x V-6000 Memory Array (16.3TB)  
 2 x VTrak J630sS JBOD

2 x UCS C200 M2 Server  
 2 x Intel Xeon E5650 2.66 GHz 12M L3 Cache 95W  
 6 x 4GB DDR3-1333MHz RDIMM  
 1 x 500GB SATA 7.2K RPM HDD

8 x UCS C250 M2 Extended-Memory  
 Server emulating **1,295,000** users.  
 Not part of the priced configuration.

System Components	Server		2 Clients (each with)	
	Quantity	Description	Quantity	Description
Processor/Cores/Threads	2/16/32	Intel Xeon E5-2690 2.90GHz, 20M L3 Cache, 135W	2/12/24	Intel Xeon E5650 2.66GHz, 12M L3 Cache, 95W
Memory	768 GB	24 x 32GB DDR3-1333MHz RDIMM	24 GB	6 x 4GB DDR3
Storage Controllers	2	LSI MegaRAID SAS 9280-4i4e	1	LSI 1064E
Disk Drives (Internal)	2	300GB 6Gb SAS 10K RPM SFF HDD (Internal, OS)	1	500GB SATA 7.2K RPM HDD (OS)
Storage Arrays	8	1TB 6Gb SATA 7.2K RPM SFF HDD (Internal)		
	3	QLE2464 QP 4Gb FC PCI E HBA		
	2	V-6000 Memory Array (16.3 TB)		
	2	VTrak J630sS JBOD with: 10 x 600GB 15K SAS HDD, 6 x 3TB 7.2K NL-SAS HDD		
Total Storage	60.04 TB			



# Cisco UCS C240 M3 Rack Server

TPC-C Rev. 5.11

TPC-Pricing Rev. 1.7.0

Report Date: 10/26/2012

Description	Part Number	Brand	Source	Unit Price	Qty	Extended Price	3 Year Maint. Price
<b>Server Hardware</b>							
UCS C240 M3 SFF w/o CPU, mem, HD, PCIe, w/ rail kit, expdr	UCSC-C240-M3S	Cisco		3,600	1	3,600	
Intel Xeon E5-2690 2.90 GHz/135W 8C/20MB Cache/DDR3 1600MHz	UCS-CPU-E5-2690	Cisco		4,686	2	9,372	
2 x 32GB DDR3-1333-MHz RDIMM	UCS-MR-2X324RX-C	Cisco		13,200	12	158,400	
1200W 2u Power Supply For UCS	UCSC-PSU2-1200	Cisco		652	1	652	
LSI MegaRAID SAS 9280-4i4e, 4 internal and 4 external ports	UCSC-RAID-C-4I4E	Cisco		1,592	2	3,184	
300GB 6Gb SAS 10K RPM SFF HDD	A03-D300GA2	Cisco		561	2	1,122	
1TB 6Gb SATA 7.2K RPM SFF HDD/hot plug	A03-D1TBSATA	Cisco		989	8	7,912	
MS Comfort Curve DT 3000 USB-EN NA Keyboard & Mouse	7ZJ-00001	Provantage		19	1	19	
V173DjB LCD Monitor	ET-BV3RP-D03	Provantage		93	1	93	
Cisco R42610 expansion rack	RACK-UCS	Cisco		2,857	1	2,857	
C240 24x7x4Hr Onsite Support Service	CON-UCSD7-C240M3SF	Cisco		541	3		1,623
						187,211	1,623
<b>Storage</b>							
V-6000 Memory Array	V-6616-HA64-8xFC	Violin		540,000	2	1,080,000	
Violin Bronze Maintenance - 3 year	VS-BRONZE-3Y	Violin		54,000	2		108,000
QLE2564 Quad Port 8Gb FC PCI Express HBA (in. 10% spare)	QLE2564-CK	Provantage		2,696	5	13,479	Inc
VTrak JBOD JBx30 Series 6G SAS 3U/16-bay Single-controller Expansion Chas	J630SSNX	Datalink		3,895	2	7,790	
600GB 15K SAS Drive (inc. 10% spare)	ST3600057SS	Datalink		485	22	10,670	
3TB 7.2K NL-SAS Drive (inc. 10% spare)	ST33000650SS	Datalink		420	14	5,880	
Promise ServicePlus Plan	SP3YEAR	Datalink		995	2		1,990
						1,117,819	109,990
<b>Client Hardware</b>							
UCS C200 M2 Srvr w/1PSU, DVD w/o CPU, mem, HDD or PCIe card	R200-1120402W	Cisco		2,343	2	4,686	
Intel Xeon X5650 2.66GHz 95W CPU/12MB cache/DDR3 1333MHz	A01-X0105	Cisco		2,754	4	11,016	
4GB DDR3-1333-MHz RDIMM/PC3-10600	UCS-MR-1X041RX-A	Cisco		319	12	3,828	
LSI 1064E (4-port SAS 3.0G RAID 0, 1, 1E ) Mezz Card	R2X0-ML002	Cisco		281	2	562	
Gen 2 500GB SATA 7.2K RPM 3.5in HDD	R200-D500GCSATA03	Cisco		448	2	896	
C200 24x7x4Hr Onsite Support Service	CON-UCS7-R200W	Cisco		405	6		2,430
						20,988	2,430
<b>Connectivity</b>							
Catalyst 2960S 24 GigE	WS-C3560CG-8TC-S	Cisco		1,995	1	1,995	
Onsite 24x7x4 Cat 2960S 24GigE	CON-OSP-2960S2SS	Cisco		280	3		840
						1,995	840
<b>Discounts</b>							
Large Purchase Discount <sup>1</sup>	57.00% Cisco <sup>1</sup>				1	-118,674	
Large Purchase Discount	50.00% Violin				1	-540,000	-54,000
						669,340	60,883
<b>Server Software</b>							
Oracle Linux		Oracle		0	2		
Oracle Linux Basic Limited (3 year support)		Oracle		1,497	1		1,497
Oracle Database 11g Release 2 Standard Edition One, Per Processor for 3Yea		Oracle		2,900	2	5,800	
Incident Server Support		Oracle		2,300	3		6,900
						5,800	8,397
<b>Client Software</b>							
Microsoft Windows Server 2008 Standard Edition	p73-04755	Microsoft		1,029	2	2,058	
Microsoft Problem Resolution Services	NA	Microsoft		259	1		259
Microsoft Visual Studio Standard 2008	127-00166	Microsoft		299	1	299	
						2,357	259
						677,497	69,539

Pricing: 1=Cisco 2=Oracle 3=Microsoft 4=Violin 5=Datalink 6=Provantage; i- Applicable to Source (1) excludes Support Services and Connectivity

Audited by Francois Raab of InfoSizing, Inc. www.sizing.com

All discounts are based on US list prices and for similar quantities and configurations. The discounts are based on the overall specific components pricing from respective vendors in this single quotation. Discounts for similarly sized configurations will be similar to those quoted here, but may vary based on the components in the configuration.

Three-Year Cost of Ownership:	747,036
tpmC:	1,609,186.39
\$ / tpmC:	0.47

Prices used in TPC benchmarks reflect the actual prices a customer would pay for a one-time purchase of the stated components. Individually negotiated discounts are not permitted. Special prices based on assumptions about past or future purchases are not permitted. All discounts reflect standard pricing policies for the listed components. For complete details, see the pricing sections of the TPC benchmark specifications. If you find that the stated prices are not available according to these terms, please inform at [pricing@tpc.org](mailto:pricing@tpc.org). Thank you

## Numerical Quantities Summary

**MQTH, Computed Maximum Qualified Throughput: 1,609,186.39 tpmC**

<b>Response Times (in seconds)</b>	<b>Average</b>	<b>90%</b>	<b>Maximum</b>
New-Order	0.353	0.479	3.698
Payment	0.351	0.477	3.758
Order-Status	0.352	0.478	3.325
Delivery (interactive portion)	0.288	0.410	3.206
Delivery (deferred portion)	0.092	0.506	3.825
Stock-Level	0.354	0.480	3.090
Menu	0.290	0.411	3.970

### **Transaction Mix, in percent of total transaction**

New-Order	44.95%
Payment	43.02%
Order-Status	4.01%
Delivery	4.01%
Stock-Level	4.02%

### **Emulation Delay (in seconds)**

	<b>Resp.Time</b>	<b>Menu</b>
New-Order	0.100	0.100
Payment	0.100	0.100
Order-Status	0.100	0.100
Delivery (interactive)	0.100	0.100
Stock-Level	0.100	0.100

### **Keying/Think Times (in seconds)**

	<b>Min.</b>	<b>Average</b>	<b>Max.</b>
New-Order	18.000/0.000	18.000/12.082	18.024/120.30
Payment	3.000/0.000	3.000/12.087	3.049/120.30
Order-Status	2.000/0.000	2.000/10.081	2.020/100.30
Delivery (interactive)	2.000/0.000	2.000/5.058	2.019/50.30
Stock-Level	2.000/0.000	2.000/5.054	2.049/50.30

### **Test Duration**

Ramp-up time	00:60:00
Measurement interval	2:00:00
Transactions (all types) completed during measurement interval	429621953
Ramp down time	0:01:00

### **Checkpointing**

Number of checkpoints	4
Checkpoint interval (average)	29:27